

Orange County Natural Areas Inventory

PENECOST ROAD NESTRONIA FLAT

Site Number: HO2

Size: 8 acres

Site Significance: County

USGS Quad: Cedar Grove

SIGNIFICANT FEATURES: This is one of the county's few sites for nestronia (*Nestronia umbellula*), a *watch list* plant species (formerly state-listed plant species). Nestronia is endemic to the Southeastern US; however the only other known Orange County population of this species exists at three sites along Morgan Creek (M08). Lewis' heartleaf (*Hexastylis lewisii*), a state-listed species, is also found at this site and is one of only four populations known in Orange County.

NATURAL COMMUNITIES: Dry-Mesic Oak—Hickory Forest

GENERAL DESCRIPTION: The woodlands comprising this habitat are surrounded by a patchwork of fields and woodlot blocks in a long-used agricultural area. The woodland is a surprisingly mature forest dominated mostly by drier oaks and hickories. Post oak (*Quercus stellata*), white oak (*Q. alba*), southern red oak (*Q. falcata*), black oak (*Q. velutina*), mockernut hickory (*Carya tomentosa*), pignut hickory (*C. glabra*), and loblolly pine (*Pinus taeda*) occur in the canopy. Sourwood (*Oxydendrum arboreum*), fringe tree (*Chionanthus virginicus*), azalea (*Rhododendron nudiflorum*), and serviceberry (*Amelanchier arboreal*) are the major species of the subcanopy, while squaw-huckleberry (*Vaccinium stamineum*) and black haw (*Viburnum rafinesquianum*) are the most common shrubs. Nestronia (*Nestronia umbellula*) is apparently restricted to the eastern edge of the forest. Herbs are almost non-existent except for the Lewis' heartleaf, which is common on the forest floor. Much of this herb layer is dominated by trailing vines, including Virginia creeper (*Parthenocissus quinquefolia*), greenbrier (*Smilax rotundifolia*), and two species of grape (*Vitis labrusca* and *V. rotundifolia*).

MANAGEMENT AND PROTECTION: This site receives no formal protection, and the landowner needs to be alerted to the significance of the site. The nestronia is growing on the ecotonal margins of the block of forest; increased clearing into the forest margin may decimate the population.

OWNERSHIP: Private

REFERENCES: Sather, D. and S. Hall. 1988. Inventory of the Natural Areas and Wildlife Habitats of Orange County, North Carolina, Appendix B: Biological Documentation of Sites. N.C. Natural Heritage Program, DENR, Raleigh, NC.